

WHAT IS CLAIMED IS:

1. A camera comprising:

a sensor array which detects an image signal of
a subject existing in a specific position on a photo-
graphic screen and has a plurality of sensors;

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a computing section which calculates the average
value of the outputs of a part of said plurality of
sensors in the sensor array;

an average photometric sensor which detects the
average brightness at the photographic screen;

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an average luminance computing section which
calculates the average luminance value at the
photographic screen on the basis of the output of the
average photometric sensor;

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a subject state judgment section which determines
the state of the subject by comparing the average value
of the sensor outputs with the average luminance value;
and

an exposure control determining section which
determines exposure control during photographing on the
basis of the average luminance value and the results of
the determinations at the subject state judgment
section and the subject field state judgment section.

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2. The camera according to claim 1, further
comprising:

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a photographic optical system capable of variable
power;

a first optical system which directs light from the subject to the sensor array and is different from the photographic optical system; and

5 a second optical system which directs the light from the subject to the average photometric sensor and is different from the photographic optical system, wherein

10 the average photometric sensor has a plurality of light-receiving portion, each having a different light-receiving range, and changes not only the size occupied by a part of said plurality of sensors in the sensor array used in the computing section but also the light-receiving range of the average photometric sensor according to the variable power state of the photographic optical system.

15 3. The camera according to claim 1, wherein the sensor array produces a distance-measuring image signal, and

20 the outputs of a part of said plurality of sensors in the sensor array used in the computing section correspond to the sensor outputs used for distance measurement.

4. The camera according to claim 3, further comprising:

25 a photographic optical system; wherein

the sensor array is capable of forming a distance-measuring image signal at a plurality of position on

the photographic screen, and

the outputs of a part of said plurality of sensors in the sensor array used in the computing section correspond to the outputs of the sensors used to output distance data used to focus the photographic optical system among a plurality of positions on the photographic screen.

5. The camera according to claim 1, further comprising:

10 a strobe unit which emits strobe light toward the subject; and

a judgment section which determines whether the strobe light reaches the subject, wherein

the exposure control determining section determines exposure control during photographing, taking into account the result of the determination at the judgment section.

15 6. The camera according to claim 5, wherein the exposure control determining section determines exposure control during photographing so as to cause the strobe unit to emit light and perform exposure control, when the judgment section has determined that the strobe light reaches the subject and the result of the determination at the subject state judgment section has shown a specific state.

25 7. The camera according to claim 6, wherein the subject state judgment section determines

whether the subject is against light, and

the specific state is a state where the subject is against light.

8. The camera according to claim 5, further
5 comprising a discriminative section which discriminates the mode of the camera, wherein

the exposure control determining section determines exposure control during photographing, taking into account the result of the result of the
10 discrimination at the discriminative section.

9. A camera comprising:

a photographic optical system;

an area sensor which outputs a first image signal, the first image signal being an image signal of a
15 subject detected via the photographic optical system;

an optical system different from the photographic optical system; and

a sensor which outputs a second image signal, the second image signal being an image signal of the
20 subject detected via the optical system different from the photographic optical system, wherein

a distance is detected from the second image signal and a part of the first image signal, which coincides with a viewing range of the area sensor.

25 10. A camera comprising:

a sensor array which detects an image signal of a subject existing in a specific position on a

photographic screen and has a plurality of sensors;

a computing section which calculates the average value of the outputs of a part of said plurality of sensors in the sensor array;

5 an average photometric sensor which detects the average brightness of visible light at the photographic screen;

an average luminance computing section which calculates the average luminance value at the photographic screen on the basis of the output of the average photometric sensor;

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an infrared photometric sensor which detects an infrared luminance value indicating the brightness of the average infrared light at the photographic screen;

15 a subject state judgment section which determines the state of the subject by comparing the average value of the sensor outputs with the average luminance value;

a subject field state judgment section which determines the state of a subject field including the subject by comparing the average luminance value with the infrared luminance value; and

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an exposure control determining section which determines exposure control during photographing on the basis of the average luminance value and the results of the determinations at the subject state judgment section and the subject field state judgment section.

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11. The camera according to claim 10, further

comprising:

a strobe unit which emits strobe light toward the subject; and

5 a judgment section which determine whether the strobe light reaches the subject, wherein

the exposure control determining section not only determines exposure control during photographing so as to cause the strobe unit to emit light and perform exposure control, when the judgment section determines
10 that the strobe light reaches the subject and the result of the determination at the subject state judgment section has shown a specific state, but also determines exposure control during photographing so as to cause the strobe unit to emit light and perform
15 exposure control, when the judgment section determines that the strobe light reaches the subject and the result of the determination at the subject field state judgment section has shown a specific state.

12. The camera according to claim 11, wherein
20 the subject state judgment section determines whether the subject is against light, and

the specific state is a state where the subject is against light.

13. The camera according to claim 11, wherein
25 the subject field state judgment section determines whether the light source of the subject field is artificial, and

the specific state is a state where the light source of the subject field is artificial.

14. The camera according to claim 11, further comprising a discriminative section which discriminates
5 the mode of the camera, wherein

the subject state judgment section does not make a decision, when the discriminative section has determined that the camera is in a specific mode.

15. The camera according to claim 14, wherein the
10 specific mode is at least one of a strobe OFF mode, a spot photometric mode, and an infinite photographic mode.

16. The camera according to claim 11, further comprising a discriminative section which discriminates
15 the mode of the camera, wherein

the subject field state judgment section does not make a decision, when the discriminative section has determined that the camera is in a specific mode.

17. The camera according to claim 16, wherein the
20 specific mode is at least one of a strobe OFF mode, a spot photometric mode, and an infinite photographic mode.

18. The camera according to claim 10, further comprising:

25 a photographic optical system; and

a finder which is provided separately from the photographic optical system and is for viewing the

image of the subject, wherein

the sensor array and the average photometric sensor are provided near the finder.

19. The camera according to claim 18, wherein the
5 infrared photometric sensor is provided farther away from the finder than from the average photometric sensor and sensor array.

20. A camera comprising:

10 a photometric section which measures the subject luminance in a plurality of areas on a photographic screen;

a distance-measuring section which measures the subject distance in a plurality of areas on the photographic screen;

15 a first select section which selects one from a plurality of distance-measuring areas on the photographic screen on the basis of the distance-measuring data about each distance-measuring area;

20 a second select section which selects one from the photometric area corresponding to the distance-measuring area selected by the first select section and its adjacent photometric areas on the basis of the photometric data about each photometric area; and

25 a backlight judgment section which makes a decision on backlighting by comparing the photometric data about the photometric area selected by the second select section with the photometric data about each

photometric area.

21. The camera according to claim 20, wherein the distance-measuring area selected by the first select section is the distance-measuring area whose distance-measuring data indicates the closest distance.

22. The camera according to claim 20, wherein the photometric area selected by the second select section is the photometric area whose photometric data indicates the lowest luminance.

23. The camera according to claim 20, wherein the photometric section and the distance-measuring section share a light-receiving section.

24. A camera comprising:

a photometric section which measures the subject luminance in a plurality of areas on a photographic screen;

a distance-measuring section which measures the subject distance and subject luminance in a plurality of areas on the photographic screen;

a first select section which selects one from a plurality of distance-measuring areas on the photographic screen on the basis of the distance-measuring data about each distance-measuring area;

a second select section which selects one from the distance-measuring area selected by the first select section and its adjacent distance-measuring areas on the basis of the photometric data about each

distance-measuring area; and

5 a backlight judgment section which makes a decision on backlighting by comparing the photometric data about the distance-measuring area selected by the second select section with the photometric data from the photometric section.

25. The camera according to claim 24, wherein the distance-measuring area selected by the first select section is the distance-measuring area whose distance-measuring data indicates the closest distance.

26. The camera according to claim 24, wherein the distance-measuring area selected by the second select section is the distance-measuring area whose distance-measuring data indicates the lowest luminance.

15 27. The camera according to claim 24, wherein the photometric section and the distance-measuring section share a light-receiving section.

28. A camera comprising:

20 an imaging section which detects a subject image signal;

a backlighting state judgment section which determines whether the subject is against light;

25 a strobe unit which emits strobe light onto the subject on the basis of the result of the decision on backlighting at the backlighting state judgment section; and

an image processing section which compares the

brightness of the subject with that of the background when the strobe unit emits the strobe light onto the subject, changes the amount of correction by a gamma conversion process or a contour emphasizing process on the basis of the result of the comparison, and processes the image of the subject image signal detected by the imaging section.

29. The camera according to claim 28, further comprising:

10 a subject distance judgment section which determines the distance to the subject, wherein

it is determined whether the strobe light has a sufficient light quantity for the subject, on the basis of the subject distance determined by the subject distance judgment section, and when the result has shown that the strobe light has a sufficient light quantity and the exposure value of the background is larger than a specific value, the image processing section increases the gamma value in the gamma conversion process and processes the image so as to weaken contour emphasis in the contour emphasizing process.

30. The camera according to claim 28, further comprising:

25 a subject distance judgment section which determines the distance to the subject, wherein

it is determined whether the strobe light has a

sufficient light quantity for the subject, on the basis of the subject distance determined by the subject distance judgment section, and when the result has shown that the strobe light has a sufficient light
5 quantity and the exposure value of the background is less than a specific value, the image processing section does not change the amount of correction in the gamma conversion process and the contour emphasizing process.

10 31. The camera according to claim 28, further comprising:

a subject distance judgment section which determines the distance to the subject, wherein

it is determined whether the strobe light has a
15 sufficient light quantity for the subject, on the basis of the subject distance determined by the subject distance judgment section, and when the result has shown that the light quantity is insufficient and the insufficient quantity is larger than a specific
20 quantity, exposure is made so as to increase the exposure value.

32. The camera according to claim 28, further comprising:

25 a subject distance judgment section which determines the distance to the subject, wherein

it is determined whether the strobe light has a sufficient light quantity for the subject, on the basis

of the subject distance determined by the subject distance judgment section, and when the result has shown that the light quantity is insufficient and the insufficient quantity is smaller than a specific
5 quantity, the image processing section increases the gamma value in the gamma conversion process and makes a correction so as to weaken contour emphasis in the contour emphasizing process.

33. A camera comprising:

10 an imaging section which detects a subject image signal;

a distance-measuring section which measures the distance to the subject;

15 a strobe unit whose light quantity is controlled on the basis of the result of the distance measurement at the distance-measuring section;

an image processing section which processes the subject image signal detected by the image processing section;

20 an illumination state judgment section which determines the illuminated state of the subject before photographing; and

a control section which controls the strobe unit and the image processing section on the basis of the
25 result of the output of the distance-measuring section and the result of the output of the illumination state judgment section.